

Title (en)

HIGH FILLING AND HIGH RESILIENCE SOFT FOAMING POLYETHYLENE MATERIAL AND PREPARATION METHOD THEREOF

Title (de)

HOCHGEFÜLLTES UND HOCHELASTISCHES WEICHES POLYETHYLENSCHAUMMATERIAL UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

MATÉRIAUX EN POLYÉTHYLÈNE POUR FORMATION DE MOUSSE SOUPLE À REMPLISSAGE ÉLEVÉ ET RÉSILIENCE ÉLEVÉE ET SON
PROCÉDÉ DE PRÉPARATION

Publication

EP 2957594 A4 20160518 (EN)

Application

EP 14876228 A 20141228

Priority

- CN 201310746830 A 20131230
- CN 2014095237 W 20141228

Abstract (en)

[origin: EP2957594A1] Disclosed is a high filling and high resilience soft foaming polyethylene material, comprising the following parts of raw materials by weight: 15-20 parts polyethylene, 5-20 parts elastomers, 60-80 parts modified calcium carbonate, 1-10 parts chemical foaming agent, 0.5-1.5 parts crosslinking agent and 1-5 parts physical foaming agent. Also disclosed is a method of preparing high filling and high resilience soft foaming polyethylene material. The present invention can prepare a high calcium carbonate filling and high resilience soft foaming polyethylene material with calcium carbonate filler content as high as 55-75%, improving rigidity, hardness and compressive strength of the material while maintaining the elasticity of the foaming material, and reducing material density. The present invention has a simple process, greatly reduces costs and is economical and practical.

IPC 8 full level

C08J 9/00 (2006.01); **C08J 9/10** (2006.01); **C08J 9/32** (2006.01); **C08L 23/06** (2006.01); **C08L 23/08** (2006.01); **C08L 23/16** (2006.01);
C08L 53/02 (2006.01)

CPC (source: CN EP US)

C08J 9/0061 (2013.01 - CN EP US); **C08J 9/0066** (2013.01 - EP US); **C08J 9/009** (2013.01 - EP US); **C08J 9/103** (2013.01 - CN EP US);
C08J 9/32 (2013.01 - CN EP US); **C08L 23/06** (2013.01 - CN EP US); **C08L 23/0815** (2013.01 - CN); **C08L 53/025** (2013.01 - EP US);
C08J 2201/026 (2013.01 - EP US); **C08J 2203/04** (2013.01 - CN EP US); **C08J 2203/184** (2013.01 - CN EP US);
C08J 2203/22 (2013.01 - CN EP US); **C08J 2323/06** (2013.01 - CN EP US); **C08J 2323/08** (2013.01 - CN EP US);
C08J 2400/22 (2013.01 - EP US); **C08J 2400/26** (2013.01 - EP US); **C08J 2409/06** (2013.01 - EP US); **C08J 2423/08** (2013.01 - EP US);
C08J 2423/16 (2013.01 - EP US); **C08J 2431/04** (2013.01 - EP US); **C08J 2453/02** (2013.01 - EP US); **C08L 2203/14** (2013.01 - CN);
C08L 2205/025 (2013.01 - CN); **C08L 2205/03** (2013.01 - CN); **C08L 2205/035** (2013.01 - CN); **C08L 2207/062** (2013.01 - CN);
C08L 2207/066 (2013.01 - CN)

Citation (search report)

- [A] DE 102012105351 A1 20131224 - VOGELSANG ERNST GMBH CO KG [DE]
- [A] JP 2005212377 A 20050811 - EIDAI KAKO KK
- See references of WO 2015101242A1

Cited by

EP3231836A1; EP3512912A4; EP4001352A1; EP3883995A4; WO2017178500A1; WO2022101118A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2957594 A1 20151223; EP 2957594 A4 20160518; EP 2957594 B1 20181010; AU 2014101568 A4 20160114; AU 2014375530 A1 20151001;
CN 103694542 A 20140402; CN 103694542 B 20150225; JP 2016512860 A 20160509; JP 6403752 B2 20181010; US 2016009885 A1 20160114;
US 9828480 B2 20171128; WO 2015101242 A1 20150709

DOCDB simple family (application)

EP 14876228 A 20141228; AU 2014101568 A 20141228; AU 2014375530 A 20141228; CN 201310746830 A 20131230;
CN 2014095237 W 20141228; JP 2016504485 A 20141228; US 201414770825 A 20141228